

Abstract:

A touch sensor using a Hall IC is provided. To this end, in a cantilever mechanism 15 of a parallel link by two plate springs 16, a coupling member 18 on the fixed side is fixed to a supporting block 24 which penetrates through the center of a plate spring 16 on a lower side and uprightly provided on a pedestal 22. A movable portion 28 on the free end side is a lightweight coupling member 19 provided by bendprocessing an aluminum thin plate, to which a rare-earth magnet 25 is adhered. An elastic part 20a of a Hall IC supporting member 20 is fixed to the coupling member 18 on the fixed side, and a rigid part 20b with a rib 17a is supported by an adjusting rod 36 to fine-adjust relative position of a Hall IC 26 provided on the free end with respect to the magnet 25. Elastic wire materials 38s are fixed to the Hall IC supporting members 20s which hold at a free end 38b the self-weight of the movable portion 28, and abutted with a lower surface 40a of a bush on the inner surface of a housing 12, so that the movable portion 28 is stabilized in its position. A light load of 0.5 gf or less activates an anvil 34, and the Hall IC 26 detects a minute displacement of 0.1 mm or less of the magnet 25, in order to light up a signal light 14.